CLAIMS

1. A substrate processing apparatus comprising:

a rotary workpiece-holding means for holding and rotating a substrate;

a plurality of processing liquid pouring nozzles for pouring processing liquids on a surface of the substrate held by the rotary workpiece-holding means;

a nozzle-holding means for holding the processing liquid pouring nozzles at their home positions beside the rotary workpiece-holding means; and

a nozzle carrying means for detachably gripping desired one of the processing liquid pouring nozzles held on the nozzle-holding means, and carrying the desired processing liquid pouring nozzle to a working position above the substrate;

wherein the processing liquid pouring nozzles are held in alignment with straight lines extending between the center of the rotary workpiece-holding means about which the rotary workpiece-holding means rotates and nozzle holding openings formed at suitable intervals in the nozzle-holding means, respectively, and flexible supply tubes connecting the processing liquid pouring nozzles to processing liquid sources are arranged on extensions of the straight lines, respectively.

2. The substrate processing apparatus according to claim 1, wherein the nozzle-holding means is provided with angular position determining walls disposed adjacently to the nozzle holding openings such that sides of the nozzle heads of the processing liquid pouring nozzles are contiguous with the angular position determining walls, respectively.

3. The substrate processing apparatus according to claim 1, wherein the nozzle-holding means includes horizontal movement inhibiting members that engage with the opposite side surfaces of the processing liquid pouring nozzles, and each of the processing liquid pouring nozzles

has vertical movement inhibiting projections that engage with the opposite ends of the horizontal movement inhibiting member.

4. The substrate processing apparatus according to claim 3, wherein the horizontal movement inhibiting members are provided with attractive fixating means for fixedly holding the processing liquid pouring nozzles in place, and the processing liquid pouring nozzles are provided with plates at positions respectively corresponding to the attractive fixating means.

5. The substrate processing apparatus according to claim 1, wherein the nozzle carrying means is movable in optional directions in a horizontal plane parallel to the surface of the substrate.

6. The substrate processing apparatus according to claim 1, wherein the processing liquid pouring nozzles are provided in their upper surfaces with a gripping recess with which a gripper included in the nozzle carrying means is able to engage, and a positioning recess with which a positioning pin attached to the nozzle carrying means at a position adjacent to the gripper is able to engage.

7. The substrate processing apparatus according to claim 6, wherein the gripping recesses and the positioning recesses of the processing liquid pouring nozzles are formed such that lines connecting the gripping recesses and the positioning recesses are parallel to each other.

8. The substrate processing apparatus according to claim 1, wherein a solvent vapor atmosphere creating space in which a solvent is stored and a solvent vapor atmosphere is produced is formed in the nozzle-holding means so as to communicate with the nozzle holding openings of the nozzle-holding means, the lower end of a drain line connected to the nozzle holding openings and extending downward is disposed in a sump formed in the bottom wall of a drain/exhaust duct, and drained liquid flowing through the drain line and overflowing the sump is discharged.

9. The substrate processing apparatus according to claim 8, wherein the drain/exhaust duct is connected to a discharge port formed in the bottom of a vessel surrounding a space extending around and under the rotary workpiece-holding means, and the bottom of the drain/exhaust passage is sloped.